

generating a mesh model from said 3D region using a tree structure; and
producing said fully-textured 3D model from said mesh model with respect to
said sequence of images.

18. (Twice amended) A computer readable medium for storing computer program instructions for automatically generating a fully-textured 3D model of an object, said computer readable medium comprising:

first program code for receiving from a camera a sequence of images taken sequentially and respectively around the object;

second program code for generating a 3D region from a sequence of mask images, each of said mask images derived from one of said sequence of images by projecting the object onto [a specific plane] a corresponding one of planes positioned virtually surrounding the object;

third program code for generating a mesh model from said 3D region using a tree structure; and

fourth program code for producing said fully-textured 3D model from said mesh model with respect to said sequence of images.

35. (Once amended) A system for automatically generating a fully-textured 3D model of an object[,], said system comprising:

a turntable driven by a stepper motor to rotate said object placed thereon;

a camera positioned within a field of view of said camera viewing from an angle α looking down toward, and slightly oblique to said turntable;

a computing device including memory loaded with program code, said computing device coupled to and synchronizing said camera and said stepper motor, said computing device caused, when said program is executed therein, to perform operations of:

receiving from said camera a sequence of images taken sequentially and respectively of said object when said object is being rotated by said stepper motor;

generating a 3D region from a sequence of mask images[,], each of said mask images derived from one of said sequence of images